PS COMMITTEE #1
September 13, 2012

MEMORANDUM

September 11, 2012

TO: Public Safety Committee

FROM: Susan J. Farag, Legislative Analyst SJF

SUBJECT: Update – Speed and Red Light Camera Programs

Today the Public Safety (PS) Committee will receive an update on County's speed and red light camera programs. Those expected to brief the Committee:

Captain Tom Didone, Police Department
Bruce Meier, Office of Management and Budget (OMB)

BACKGROUND

The County Police Department currently operates two automated enforcement programs, including the Safe Speed Program and the Red Light Enforcement Program.

The Red Light Enforcement Program has been in effect since 1997. The County has issued over 700,000 since its inception. The County implemented its Safe Speed Program in May 2007. The Maryland General Assembly authorized the use of automated speed enforcement systems in Montgomery County only, and required the County to report back to the General Assembly by January 2009 regarding the program's effectiveness. The law permitted the County to use automated enforcement in both school and residential zones where the maximum speed limit was 35 mph or less. When the program began, the Department had 18 mobile cameras located throughout the County. In 2009, there were 60 fixed and 59 mobile speed camera sites. Currently, there are 56 fixed pole sites, 20 portable units, and six mobile vans. The current contract provides the option of expanding this number with 10 additional portable units.

In 2009 the General Assembly expanded the authority to use automated enforcement to the entire state, and expanded the use to include highway work zones. The 2009 law also increased the minimum speed violation from 10 mph to 12 mph over the posted speed limit. It further limited the use of speed cameras in school zones to the hours of 6am – 8pm. Use of revenues may be used for "public safety purposes" only.

Speed camera tickets are $40, and red light camera tickets are $75. These are civil citations and no points are assessed on a driver's license.

Historically, each program has been administered by a separate vendor until last year. In 2011, the two contracts were combined. Xerox (formerly ACS) is the current provider for both the Safe Speed and Red Light Enforcement Programs.

NATIONAL DATA

The use of automated traffic enforcement devices has increased across the nation as a way to help reduce collisions in a cost-effective manner. According to the Insurance Institute of Highway Safety (IIHS), the need for traffic enforcement has outpaced the number of police officers and other public safety personnel who can be dedicated to traffic law enforcement. Automated devices use less manpower and allow for enforcement in areas where it may be dangerous for both drivers and police to pull over to issue citations.

To date, there are 107 jurisdictions in 13 states and the District of Columbia that use speed cameras. Maryland and Illinois permit the use of cameras statewide in highway work zones. Colorado, Utah, Washington, and Maryland permit the use of cameras in school zones. A list of jurisdictions is attached at ©33-39. Red light cameras are currently used in over 550 communities across the nation.

Effectiveness: National data reviewed in 2005 showed significant reductions in crashes, including fatal crashes, close to speed camera locations. Fourteen studies were reviewed that showed collision reductions of 5-69% near speed cameras. There was reductions of 12 to 65% for collisions that involved at least one injury. There was a 17 to 71% reduction in fatal collisions. According to IIHS, the studies that contained data for longer durations showed that these trends were either maintained or improved with time.

In 2011, the IIHS compared large cities with red light cameras to those without cameras, and found that those with cameras had a reduced their fatal red light running crash rate by 24%.

Safety: There has been some recent concern expressed in other jurisdictions about the safety of red light camera use. Anecdotally, many people believe the use of red light cameras motivates drivers to make sudden stops at intersections, causing collisions with tailgating vehicles. IIHS data indicate there are some studies that report red light cameras do in fact increase rear-end crashes. These crashes tend to be much less severe than the T-bone crashes that can occur when drivers run red lights. The number of these T-bone crashes has been reduced with the use of red light cameras, which IIHS calls a positive net effect of this type of automated traffic enforcement system.

Another federal study by the Federal Highway Administration looked at data from seven cities and found that right-angle crashes decreased by 25% while rear-end collisions increased by 15%. The positive aggregate economic benefit was $18.5 million across the seven jurisdictions

studies. There are other studies that show no significant change in rear-end injury crashes from the use of red light cameras. (see data at ©29).

MONTGOMERY COUNTY'S AUTOMATED ENFORCEMENT PROGRAM

Locations: Montgomery County may install speed cameras in school zones, residential zones, and highway construction zones. While the State law does not require that speed limits be posted near a speed camera, the Police Department advises that there is no speed-monitoring system in place that does not currently have a speed limit sign nearby. If a speed limit sign is needed, the Department requests that the State Highway Administration or the County Department of Transportation post signage. In addition to regular speed limit signs there are signs notifying drivers of the use of photo enforcement. When drivers contest the tickets in court, police officers are routinely asked to testify regarding signage and notification in the immediate vicinity of the speed camera.

The portable speed cameras are moved as needed. There is no set amount of time in which the portable cameras change locations. The Department advises it has taken a new Corridor Enforcement approach, and using the data generated from driving patterns and violations, the Department will change camera locations as necessary.

The County website provides an updated list of the locations of both red light cameras and speed cameras (©13-22).

Effectiveness and Safety: The Police Department does not to conduct ongoing evaluations of the speed-camera program's effects on driver behavior, safety, and overall effectiveness. The most recent data on effectiveness stems from an Office of Legislative Oversight report from 2009 showing that the use of speed cameras resulted in 87% compliance with speed limits in photo-enforced areas. In addition, total collisions in speed camera enforcement areas dropped by 28% over the first year of use. Collisions involving injury or fatality dropped by 39% during the same time period. (©44-45). There are currently no local data on the safety of the red light camera program.

Vendor and Contractual Changes: Until last year, the red light and speed camera programs were administered by separate vendors. The Department decided to combine them in an effort to achieve savings from both vendor costs as well as internal contractual administration costs. Having two vendors doubled the amount of time Police staff provided contractual oversight and ensured that County business practices were being followed. In addition, having two vendors required two different data systems that made data collection and analysis difficult.

In 2011, the County contracted with one vendor, Xerox (formerly ACS), to provide both services. The vendor is responsible for providing a turn-key operation, including equipment, maintenance, field, and back office processing services. The vendor does not make any decisions or recommendations regarding the issuance of red light and speed camera citations. It only provides operational and technical service at the direction of the Police Department. The

vendor continues to be compensated on a per-paid citation basis, and not on a per-issued citation basis. The compensation rate is $16.25 for speed violations and $29.34 for a red light violation.

The speed camera program was upgraded with new technology. The transition in the red light program was problematic in that SHA's permitting process cost much more than expected and delayed implementation by seven months as the vendor acquired the necessary permits to replace old red light cameras. Currently, there are only 10 of 40 sites that are operational; however, the Department expects all sites will be operating by the end of the year. With the 10 new operational cameras, the County has seen an increase from 8% to over 90% issuance rate on citations over the previous red light vendor.

Revenues: The net revenues have been declining each year since the implementation of the speed camera program, primarily because fewer tickets are issued as drivers modify their driving habits to comply with speed limits in enforcement areas. An increase is expected in FY13.

Safe Speed Program - Revenue Summary					
	FY09 Actual	**FY10 Actual**	**FY11 Actual**	**FY12 (Est)**	**FY13 App.**
Gross Revenues	$20,746,519	$16,455,621	$13,359,202	$11,999,870	$13,607,620
Net Revenues	$8,883,420	$9,064,013	$8,112,358	$3,717,836	$5,156,048

Red light citation revenue in FY11 was $2.95 million and is estimated to drop significantly in FY12.

Red Light Enforcement Program - Revenue Summary		
	FY11	**FY12 (Est)**
Gross Revenues	$2,949,056	$1,645,330
Net Revenues	$1,558,161	$506,334

Funds are used primarily to pay vendor costs. There are also personnel and operating costs within the Department to provide contractual oversight and quality control. Net revenues are used to fund public safety programs, and historically have been used for programs such as alcohol initiative programs, school safety, and traffic collision programs.

District Court Administrative Ruling Impacts Late Fees: During the FY13 budget review by the Council, the Executive transmitted a budget adjustment based on a recent District Court Administrative ruling that prohibits counties from charging and collecting late fees on speed camera and red light camera citations. Estimated revenues from Automated Traffic Enforcement late payment penalty fees were downward by -$2,304,710. The County has pursed this issue at the State level, but there has been no change in the ruling. Correspondence from the District Court is attached at ©4-12.

DISCUSSION ISSUES

1. The Department has implemented a new Corridor Enforcement approach to the speed camera program. What was the reason for this approach and what are the goals? How are corridors targeted for enforcement?

2. Does the County plan to pursue legislation in the upcoming State legislative session to permit jurisdictions to collect late fees? Does it know of any other counties that plan to do this? Are there any other methods of appeal the County can pursue? If the County were permitted to collect late fee revenues, would these monies be transmitted to the vendor, or be kept by County to be used toward public safety programs?

3. The Department has mentioned the lack of resources to keep track of some safety and effectiveness data. Is this something that can be provided under the terms of the vendor contract? If not, what would be required within the Department to collect and maintain data on an annual basis?

4. Other municipal jurisdictions like the City of Rockville and City of Takoma Park have the authority to operate both speed and red light cameras. How does the County coordinate enforcement and/or revenue collection with municipalities, if at all?

5. What quality control measures are in place to ensure the accuracy of the cameras, both for speed and red lights?

6. What are the Department's plans for the programs going forward?

F:\Farag\Packets\Public Safety\Speed Light and Red Light Camera Update.doc

1. Please provide a brief description of the red light program, including when it began, how many tickets have been issued, the vendor history.

The red light program was started in Montgomery County around 1997 and in 2005 we installed the 40 the red light camera site. I think there have been 4 vendors; EDS LCI, ATS and Xerox. This past year we have a new vendor and we are replacing the old cameras with new technology. We issued 702,591 red light citations since its beginning. The purpose of the program was to reduce collisions due to red-light violations by changing the behavior of drivers at intersections when a traffic signal turns red.

2. Please provide a brief description of the speed camera program, including when it began, how many tickets have been issued, the vendor history.

To date, the County has issued (2) two contracts for speed-camera-related services. In 2007, the County issued its first speed-camera contract with Affiliated Computer Services (ACS). This contract required the vendor to provide fixed- and mobile-camera equipment along with the maintenance and service to support both front- and back-office operations. In November 2011, the County went out to procurement again in order to consolidate both the red-light and speed-camera programs and to improve and expand our operations. As previously mentioned, ACS-Xerox received the new contract and has upgraded our current camera systems with new technology. We currently have 56 active Fixed Poles speed-monitoring systems, 20 Portable Speed-Camera Unit (PCU) systems and six (6) Mobile Vans with an option to expand the program with an additional 10 PCUs in 2013.
This program was also started to reduce collisions. Failure to control speed is the primary factor in the majority of collisions in Montgomery County; these cameras are intended to change behavior through enforcement.

Our best estimate in the number of speed citations that we have issued since the inception of the program is 1,880,885.

3. It's my understanding the County combined these two programs and contracted with one vendor last year.

That is correct; the MCPD's Automated Traffic Enforcement Unit (ATEU) has one vendor, Xerox (formerly ACS), for both our Speed and Red-Light Programs.

Please provide a brief description about the purpose of combining them, and the experience so far (unforeseen problems or benefits?).

Administering two different contracts with two different vendors to provide similar services proved to be time-consuming, costly, and a highly inefficient use of County personnel and resources. As you may be aware, the County ATEU is responsible for managing all aspects of our red-light and speed programs. Our having two vendors essentially doubled the amount of time our personnel had to dedicate to holding meetings, administering the contract and providing oversight of field personnel to ensure that the County business practices were being adhered to. Additionally, having two different vendors required the County to use two different data systems in our back-office operations, which in turn made acquiring data for operational and citizen requests even more challenging.

Overall, we are satisfied with the decision to contract with one vendor. The administrative efficiencies that we anticipated have been realized and the speed-camera program has immediately flourished with the new technology. The transition of the red-light equipment did not go as smoothly as expected. The State Highway Administration created a gauntlet of issues during the permit process, which cost the vendor several hundred thousands of dollars and approximately seven (7) months of operational time to obtain the necessary permits to replace the old cameras. The Police Department had to meet with the SHA Administrator to remedy the

situation and obtain all 32 permits. As of today, only 10 of our 40 sites are operational but we anticipate all will be in place by year's end. Outside of the issues with SHA, we are nevertheless pleased with the new equipment and we have experienced an increase from 8% to over 90% issuance rate on citations over our previous red-light vendor.

How many cameras are currently in place?

We currently have 56 active Fixed Poles Speed-Monitoring Systems, 20 Portable Speed Monitoring Systems and six Mobile Vans.

How often do camera locations change?

There is not a set amount of time in which Mobile and Portable Speed-Monitoring Systems change deployments. The Department is implementing a new Corridor Approach program in which the locations are greatly expanded and the decision to move the equipment will be based on data and not arbitrary limits. Of course, the fixed-pole cameras rarely move.

4. The Council has received several letters from residents who indicate they have received speed camera tickets on stretches of road with no speed limit signs. Is this possible? Is there an explicit policy about where the portables (or permanent cameras) are located with regard to speed limit signs and other appropriate signage? As an example, there was a specific question about a portable camera on Wynnfield Drive in Germantown.

To answer the first part of your question—is it possible that there is no speed-limit sign near the speed-monitoring system—the answer is **NO**. If a speed-monitoring system is placed on a roadway that does not currently have a speed-limit sign nearby, we request one be posted by SHA or DOT officials. We also have to testify in court as to where the speed-limit and photo-enforcement signs are located.

You cited a citizen's example of Wynnfield Drive in Germantown with no signage. The portable-camera unit located at 20200 block of Wynnfield Drive has a speed-limit sign with photo-enforcement sign EB at 20400 block of Wynnfield Dr. and the WB camera has a speed-limit sign with a photo-enforcement sign at 20000 block of Wynnfield Drive.

We use the fairness factor, while there is nothing in the Maryland Transportation Article 21-809 that requires us to have a speed-limit sign within a certain distance from the speed-monitoring system; we nonetheless have it as an internal requirement. Every speed-monitoring system that is placed on a roadway in Montgomery County has a speed-limit sign nearby.

5. There has been concern expressed in other jurisdictions about the potential for increased accidents at intersections with red light cameras. Does the department keep data on this? If so, has there been any significant change either way since red light cameras were installed?

The Police Department has not had the opportunity or ability to evaluate the red-light program. Captain Didone, who has worked with the International Association of Chiefs of Police in the field of Automated Enforcement, has commented anecdotally on the concerns expressed, although definitive data is not available at this time.

6. Earlier reports showed that speed cameras have reduced the number of accidents and/or injuries in areas that they are installed. Does the department have current data? If so, please provide most recent data. If it is broken down by vehicle and pedestrian accidents, that would be helpful as well.

The Police Department does not have the expertise or resources to conduct an evaluation of the speed-camera program, nor to make these conclusions (to pedestrians or bicycles) based on accepted data-analysis practices. When the MCPD was tasked to bring the program to the county, we were fortunate to get the Insurance Institute for Highway Safety (IIHS) and the OLO to conduct an independent study for the Department.

Recently, the Department has engaged in discussions with the County Executive's PIO on the possibility of obtaining the resources to have a follow-up study conducted as well as having the scope of services include having the contractor help the County develop a process that would enable us to be self-sufficient to perform our own *ad hoc* analysis.

7. Please provide a status update on the recent administrative directive issued by the Chief Judge of the District Court of Maryland, which limits late payment penalty fee enforcement.

On March 23, 2012, the County received Judge Clyburn's directive (attached decision) regarding the discontinuance of late fees. The matter was immediately referred to Assistant County Attorney Dave Stevenson and ACA Stevenson made contact with the court but was unsuccessful in appealing the decision. Additionally, special legislation was created and filed to address the matter but did not pass prior to the close of the General Assembly.

8. What are current revenues? How do these compare to this time last year, or for whatever similar reporting period you use?

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Speed and Red Light Net Revenue

	FY11	FY12*
Speed	$8,258,869	$5,775,465
Red Light	$1,558,431	$506,334
Total Net Revenue	**$9,817,300**	**$6,281,799**

***FY12 numbers have not been finalized yet.**

County Executive Correspondence

ID: 1440-12 CE	TO: County Attorney Marc Hansen, Cty. Attorney
TODAY'S DATE: 03/23/2012	FROM: Pat Siok, Coordinator, 7-2507
DUE DATE:	INSTRUCTIONS Handle As Appropriate

Dave Stevenson

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(4)

1440-12

OCA 05

DISTRICT COURT OF MARYLAND

BEN C. CLYBURN
Chief Judge

Courts of Appeal Building
Annapolis, Maryland 21401
Tel: (410) 260-1525
Fax: (410) 974-5026

March 21, 2012

The Honorable Isiah Leggett
County Executive
Montgomery County
101 Monroe Street, 2nd Floor
Rockville, MD 20850

RECEIVED
MAR 23 2012
OFFICE OF THE
COUNTY EXECUTIVE

Re: Uniform Red Light Monitoring

Dear County Executive Leggett:

I am writing to advise you in advance of the District Court's amendment of the Uniform Red Light Monitoring to delete any reference to local administrative, flagging, or late fees.

By way of background, during the 1997 design of the Uniform Red Light Monitoring, the District Court allowed localities to reference administrative, flagging and/or late fees on the Uniform Citation. These fees were allowed if the localities enacted ordinances authorizing the fees, and if the citation was not paid or a request for trial was not received by the due date on the citation. This practice has resulted in the enactment of disparate fees in thirty-one (31) local jurisdictions.

The legality of this practice was raised recently during the Judiciary's legislative review of HB1053, titled "Charles County - Red Light Violations - Civil Penalties." Our Director of Legal Affairs has advised that the practice proposed in HB1053 and the existing District Court practice of allowing a reference to these fees on the Uniform Citation raise serious constitutional concerns. Specifically, the allowance of disparate fees may violate the requirement of uniformity mandated in Art IV, Section 41A of the Maryland Constitution . This practice interferes with the role of the District Court as a uniform, statewide court. As such, this practice must cease immediately, and the Uniform Citation will be amended to delete any reference to local administrative, flagging, or late fees.

The Judiciary has raised these constitutional concerns with the Legislature in its position paper on HB1053 (see attachment). Additionally, the Judiciary would not oppose efforts to amend HB1053 and adopt a uniform late fee for all jurisdictions. Such legislation would address

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the constitutional issues. In the meantime, the Judiciary will amend the Uniform Citation to delete any reference to these fees immediately. All jurisdictions using a traffic control signal monitoring system must immediately remove any reference to administrative, flagging, or late fees from the citations. Please send a revised copy of the citation to District Court Headquarters, Administrative Services, 580 Taylor Avenue, A-3, Annapolis, MD 21401.

Sincerely,

Ben C. Clyburn

BCC/kap

cc: w/attachment

The Honorable Robert M. Bell
District Court Administrative Judges
Charles County Delegation
Judicial Cabinet
Roberta Warnken
Joan Baer
Charles Moulden
Susan Armiger
Jonathan Rosenthal
David Weissert
District Court Administrative Clerks
David Durfee, Esq.
Frank Brocolina
Faye Matthews
Kelley O'Connor
Susan Delaney, Esq.

Maryland Judicial Conference

Frank Broccolina
Executive Secretary

580 Taylor Avenue
Annapolis, MD 21401

Memorandum to:	House Environmental Matters Committee
From:	Legislative Committee Suzanne P. Delaney, Staff 410-260-1523
Subject:	House Bill 1053 (3/20)
Date:	March 14, 2012

The Maryland Judiciary opposes House Bill 1053. This legislation authorizes Charles County or a municipality in Charles County, in an uncontested case involving a violation recorded by a traffic control signal monitoring system in which the civil fine is paid directly to the county or the municipality, to charge a late fee to cover administrative costs associated with processing the late payment of the fine.

Article IV, § 41A of the Maryland Constitution provides, "the District Court shall have the original jurisdiction prescribed by law. **Jurisdiction of the District Court shall be uniform throughout the State;** except that in Montgomery County and other counties and the City of Baltimore, the Court may have such jurisdiction over juvenile causes as is provided by law." Therefore, this bill is unconstitutional as the District Court is a state-wide, unified court and this bill violates that uniformity. This bill treats red light violations and red light violators in Charles County different from the rest of the State.

The Judiciary notes that since 1997, the District Court has allowed jurisdictions who want to add an additional fee on the citation to do so by submitting a copy of the local ordinance that authorizes them to collect such a fee. It has been determined that this practice violates the uniformity requirement of Article IV and will be discontinued in the near future.

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Maryland Judicial Conference

Frank Broccolina
Executive Secretary

580 Taylor Avenue
Annapolis, MD 21401

Jurisdictions will be advised that the uniform citation will be amended to delete any reference to local late and/or administrative fees.

The Judiciary believes this is an opportunity for the legislature to adopt a uniform late fee for administrative costs for all jurisdictions which would alleviate the constitutional concerns. Otherwise, these different fees could multiply interfering with the role of the District Court as a state-wide court.

cc: Charles County Delegation
Judicial Cabinet
Legislative Committee
Kelley O'Connor

DISTRICT COURT OF MARYLAND

BEN C. CLYBURN
Chief Judge

Courts of Appeal Building
Annapolis, Maryland 21401
Tel: (410) 260-1525
Fax: (410) 974-5026

March 21, 2012

The Honorable Isiah Leggett
County Executive
Montgomery County
101 Monroe Street, 2nd Floor
Rockville, MD 20850

RECEIVED

MAR 23 2012

OFFICE OF THE
COUNTY EXECUTIVE

Re: Uniform Speed Monitoring Citations

Dear County Executive Leggett:

I am writing to advise you in advance of the District Court's amendment of the Uniform Speed Monitoring Citation to delete any reference to local administrative, flagging, or late fees.

By way of background, during the 1997 design of the Uniform Speed Monitoring Citation, the District Court allowed localities to reference administrative, flagging and/or late fees on the Uniform Citation. These fees were allowed if the localities enacted ordinances authorizing the fees, and if the citation was not paid or a request for trial was not received by the due date on the citation. This practice has resulted in the enactment of disparate fees in thirty-one (31) local jurisdictions.

The legality of this practice was raised recently during the Judiciary's legislative review of HB1053, titled "Charles County - Red Light Violations - Civil Penalties." Our Director of Legal Affairs has advised that the practice proposed in HB1053 and the existing District Court practice of allowing a reference to these fees on the Uniform Citation raise serious constitutional concerns. Specifically, the allowance of disparate fees may violate the requirement of uniformity mandated in Art IV, Section 41A of the Maryland Constitution . This practice interferes with the role of the District Court as a uniform, statewide court. As such, this practice must cease immediately, and the Uniform Citation will be amended to delete any reference to local administrative, flagging, or late fees.

The Judiciary has raised these constitutional concerns with the Legislature in its position paper on HB1053 (see attachment). Additionally, the Judiciary would not oppose efforts to amend HB1053 and adopt a uniform late fee for all jurisdictions. Such legislation would address

26 MAR 12 10:54

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the constitutional issues. In the meantime, the Judiciary will amend the Uniform Citation to delete any reference to these fees immediately. All jurisdictions using a traffic control signal monitoring system must immediately remove any reference to administrative, flagging, or late fees from the citations. Please send a revised copy of the citation to District Court Headquarters, Administrative Services, 580 Taylor Avenue, A-3, Annapolis, MD 21401.

Sincerely,

Ben C. Clyburn

BCC/kap

cc: w/attachment

The Honorable Robert M. Bell
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Susan Delaney, Esq.

Maryland Judicial Conference

Frank Broccolina
Executive Secretary

580 Taylor Avenue
Annapolis, MD 21401

Memorandum to: House Environmental Matters Committee
From: Legislative Committee
Suzanne P. Delaney, Staff
410-260-1523
Subject: House Bill 1053
(3/20)
Date: March 14, 2012

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Maryland Judicial Conference

Frank Broccolina
Executive Secretary

580 Taylor Avenue
Annapolis, MD 21401

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cc: Charles County Delegation
Judicial Cabinet
Legislative Committee
Kelley O'Connor

- NB Colesville Road @ Dale Drive
- SB Colesville Road @ Fenton Street
- NB Columbia Pike @ University Boulevard
- NB Columbia Pike @ Tech Road
- SB Columbia Pike @ Tech Road
- NB Connecticut Avenue @ Randolph Road
- NB Connecticut Avenue @ Knowles Avenue
- SB Frederick Road @ Middlebrook Road
- NB N. Frederick Road @ Montgomery Village Avenue
- NB S. Frederick Road @ Shady Grove Road
- SB Georgia Avenue @ Randolph Road
- SB Georgia Avenue @ Norbeck Road
- SB Georgia Avenue @ Connecticut Avenue
- SB Georgia Avenue @ Colesville Road
- SB Georgia Avenue @ 16th Street
- EB East Gude Drive @ Southlawn Lane
- WB East Gude Drive @ Crabbs Branch
- NB Midcounty Hwy & Goshen Road
- SB New Hampshire Avenue & Lockwood Drive
- SB New Hampshire Ave @ Dilston Lane
- NB Old Georgetown Road @ Edson Lane
- NB Quince Orchard Road @ Firstfield Road
- EB Randolph Road @ Dewey Road
- WB Randolph Road @ Kemp Mill Road
- WB Randolph Road @ Selfridge Road
- WB Randolph Road @ Dewey Road
- EB Redland Road @ Crabbs Branch Road

(13)

- EB River Road @ Goldsboro Road
- WB River Road @ Wilson Lane
- SB Rockville Pike @ Grosvenor Lane
- SB Rockville Pike @ Halpine Lane
- WB Shady Grove @ MD 355/Frederick Road
- WB Shady Grove Road @ Research Boulevard
- EB University Boulevard @ Inwood Avenue
- EB University Boulevard @ Columbia Pike
- NB Viers Mill Road @ Newport Mill Road
- SB Viers Mill Road @ Twinbrook Parkway
- NB Wisconsin Ave @ Montgomery Lane
- SB Wisconsin Ave. @ Cheltenham Drive

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Below are the Montgomery County fixed pole speed camera sites. There are 56 fixed sites, however, several are in the same block facing in different directions. For example, the 24200 block of Woodfield Road has a speed camera in the northbound direction and the southbound direction, but the 24200 block is listed only once below.

1st District

14200 block	Darnestown Rd
14000 block	Glen Mill Rd
10200 block	Oaklyn Dr
10500 block	Oaklyn Dr
4600 block	Randolph Rd
9800 block	River Rd
10500 block	River Rd
6700 block	Seven Locks Rd
6900 block	Seven Locks Rd
13500 block	Travilah Rd

2nd District

10100 block	Connecticut Ave
6400 block	Democracy Blvd
4300 block	East-West Hwy
5800 block	Grosvenor Ln
9800 block	Seven Locks Rd
6100 block	Wilson Ln
6400 block	Wilson Ln

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3rd District

9200 block	Brookeville Rd
9300 block	Brookeville Rd
12200 block	New Hampshire Ave
7900 block	Piney Branch Rd
2000 block	Powder Mill Rd
600 block	Wayne Ave
300 block	Wayne Ave

-

4th District

3100 block	Bel Pre Rd
3200 block	Bel Pre Rd
1000 block	Briggs Chaney Rd
17700 block	Georgia Ave
19600 block	Georgia Ave
18600 block	Muncaster Rd
1300 block	Olney-Sandy Spring Rd
1500 block	Olney-Sandy Spring Rd
3300 block	Randolph Rd
5200 block	Russett Rd

-

5th District

18500 block	Barnesville Rd
13600 block	Darnestown Rd
19500 block	Fisher Ave
20100 block	Fisher Ave
15500 block	Germantown Rd
15700 block	Germantown Rd
22300 block	Old Hundred Rd
27000 block	Ridge Rd
14400 block	Schaeffer Rd
14500 block	Schaeffer Rd
12500 block	Wisteria Dr
24200 block	Woodfield Rd

-

6th District

18800 block	Muncaster Rd
1030 block	Quince Orchard Rd

T6

Safety For You & Red Lights Too.

Speed Camera Corridor

(17)

Montgomery County
Automated Traffic Enforcement Unit
Safe Speed Program
Speed Camera Corridor

	Corridor Road	Corridor Boundaries		
1	16th Street	9300 Block of Georgia Avenue	-	1500 Block of Spring Street
2	Apple Ridge Road	19500 Block of Montgomery Village Avenue	-	20100 Block of Watkins Mill Road
3	Arcola Avenue	1050 Block of Lamberton Drive	-	11700 Block of Georgia Avenue
4	Aspen Hill Road	12700 Block of Veirs Mill Road	-	13600 Block of Parkland Drive
5	Bells Mill Road	10700 Block of Seven Locks Road	-	10800 Block of Falls Road
6	Bonifant Road	14300 Block of Alderton Road	-	14500 Block of New Hampshire Avenue
7	Bowie Mill Road	6000 Block of Muncaster Mill Road	-	5800 Block of Foggy Lane
8	Briggs Chaney Road	15400 Block of New Hampshire Avenue	-	2700 Block of Fairdale Road
9	Calverton Blvd.	11900 Block of Cherry Hill Road	-	12200 Block of Galway Drive
10	Cashell Road	18200 Block of Bowie Mill Road	-	16600 Block of Emory Lane
11	Cedar Lane	9300 Block of Rockville Pike	-	4300 Block of Clearbrook Lane
12	Centerway Road	19200 Block of Montgomery Village Avenue	-	8600 Block of Snouffer School Road
13	Cinnamon Drive	18500 Block of Mateny Road	-	12700 Block of Clopper Road
14	Claridge Road	11700 Block of Veirs Mill Road	-	12000 Block of Milton Road
15	Crabbs Branch Way	15800 Block of Redland Road	-	15800 Block of Indianola Drive
16	Cromwell Drive	5700 Block of Massachusetts Avenue	-	5900 Block of Ridgefield Road
17	Darnestown Road	13400 Block of Haddonfield Lane	-	15500 Block of Germantown Road

Montgomery County
Automated Traffic Enforcement Unit
Safe Speed Program
Speed Camera Corridor

	Corridor Road	Corridor Boundaries		
18	Democracy Blvd.	6530 Block of Rockledge Road	-	10400 Block of Old Georgetown Road
19	Dennis Avenue	10400 Block of Georgia Avenue	-	500 Block of University Blvd.
20	Dickerson Road	20400 Block of Monocacy Road	-	21300 Block of Martinsburg Road
21	Dufief Mill Road	14800 Block of Muddy Brance Road	-	13500 Block of Travilah Road
22	East Village Avenue	20500 Block of Woodfield Road	-	20300 Block of Goshen Road
23	Father Hurley	13100 Block of Middlebrook Road	-	19100 Block of Germantown Road
		13300 Block of Wisteria Drive	-	20600 Block of Crystal Rock Drive
24	Forest Glen Road	9900 Block of Renfrew Road	-	9700 Block of Admiralty Drive
25	Gainsborough Road	11700 Block of Seven Locks Road	-	8000 Block of Democracy Blvd.
26	Georgia Avenue	3600 Block of Prince Philip / Hines Road	-	3400 Block of Spartan Road / Morningwood Drive
		9200 Block of 16th Street	-	1300 Block of Spring Street
27	Glen Mill Road	13500 Block of Pheasant Drive	-	2700 Block of Wootton Pkwy.
28	Glen Road	13400 Block of Query Mill Road	-	11600 Block of Falls Road
29	Gold Mine Road	19100 Block of Georgia Avenue	-	19400 Block of James Creek Court
30	Grosvenor Lane	6100 Block of Cheshire Drive	-	10300 Block of Thornbush Lane
31	Hewitt Avenue	13500 Block of Georgia Avenue	-	13700 Block of Rippling Brook Drive
32	Hines Road	17400 Block of Georgia Avenue	-	17400 Block of Cashell Road

Montgomery County
Automated Traffic Enforcement Unit
Safe Speed Program
Speed Camera Corridor

Montgomery County SAFE SPEED
Safety For You & Red Lights Too.

	Corridor Road	Corridor Boundaries		
33	Homecrest Road	3000 Block of Bel Pre Road	-	2400 Block of Longmead Crossing Drive
34	Kemp Mill Road	1500 Block of Arcola Avenue	-	1200 Block of Randolph Road
35	Kingstead Road	25100 Block of Oak Drive	-	25100 Block of Brunt Hill Road
36	Laytonsville Road	7000 Block of Brink Road	-	6900 Block of Griffith Road
37	Massachusetts Avenue	5100 Block of Duvall Drive	-	5400 Block of Sangamore Road
38	Midcounty Hwy.	17700 Block of Washington Grove Lane	-	17400 Block of Shady Grove Road
39	Montgomery Village Avenue	9200 Block of Midcounty Hwy.	-	9900 Block of Stedwick Road
		19400 Block of Club House Road	-	9300 Block of Wightman Road
40	Muncaster Road	7100 Block of Horizon Terrace	-	5600 Block of Olney Laytonsville Road
41	Olney Laytonsville Road	18800 Block of Olney Mill Road	-	18400 Heritage Hills Drive
42	Olney Sandy Spring Road	17500 Block of Dr Bird Road	-	17800 Block of Norwood Road
43	Parkland Drive	12400 Block of Veirs Mill Road	-	13600 Block of Grenoble Drive
44	Plyers Mill Road	10700 Block of Georgia Avenue	-	10500 Block of Drumm Avenue
45	Powder Mill Road	10200 Block of Green Forest Drive	-	10400 Block of Kinloch Road
46	Quail Valley Blvd.	18600 Block of Strawberry Knoll Road	-	18900 Block of Strawberry Knoll Road
47	Quince Orchard Road	12200 Block of Darnestown Road	-	13800 Block of Dufief Mill Road

Montgomery County
Automated Traffic Enforcement Unit
Safe Speed Program
Speed Camera Corridor

	Corridor Road	Corridor Boundaries		
48	Randolph Road	12500 Block of Heurich Road	-	12700 Block of Kemp Mill Road
		12300 Block of Connecticut Avenue	-	12300 Block of Livingston Street
		12000 Block of Putman Road	-	12300 Block of Connecticut Avenue
49	Redland Road	7100 Block of Roslyn Avenue	-	17100 Block of Funders Mill Drive
50	Richter Farm Road	18700 Block of Germantown Road	-	14200 Block of Clopper Road
51	Ridge Road	10600 Block of Sweepstakes Road	-	13400 Block of Davis Mill Road
		10200 Block of Bethesda Church Road	-	25000 Block of Oak Drive
52	River Road	10700 Block of Piney Meetinghouse Road	-	9500 Block of Persimmon Tree Road
53	Russett Road	14500 Block of Bauer Drive	-	13700 Block of Arctic Avenue
54	Sangamore Road	6000 Block of Massachusetts Avenue	-	5100 Block of Sentinel Drive
55	Schaeffer Road	18000 Block of Central Park Circle	-	13700 Block of Clopper Road
56	Seminary Road	Burket Court	-	2600 Block of Forest Glen Road
57	Seven Locks Road	7900 Block of River Road	-	7800 Block of MacArthur Blvd.
		7800 Block of River Road	-	7900 Block of Bells Mill Road
58	Stonebridge View Drive	15000 Block of Muddy Branch Road	-	14200 Block of Travilah Road
59	Tenbrook Drive	1200 Block of Forest Glen Road	-	1000 Block of Whitehall Street
60	Travilah Road	10100 Block of Darnestown Road	-	13500 Block of River Road

Montgomery County
Automated Traffic Enforcement Unit
Safe Speed Program
Speed Camera Corridor

	Corridor Road	Corridor Boundaries		
61	Tuckerman Lane	11300 Block of Seven Locks Road	-	11800 Block of Falls Road
62	Wayne Avenue	8400 Block of Cedar Street	-	8800 Block of Sligo Creek Pkwy.
63	Wilson Lane	6700 Block of River Road	-	5700 Block of Bradley Blvd.
		6800 Block of River Road	-	7300 Block of Mac Arthur Blvd.
64	Wisconsin Avenue	4100 Block of Oliver Street	-	4500 Block of Bradley Lane
65	Wisteria Drive	14000 Block of Great Seneca Hwy.	-	18700 Block of Waring Station Road
66	Woodfield Road	9600 Block of Low Meadow Drive	-	9000 Block of Kimblehunt Drive

Q&A: Speed — law enforcement

July 2012

More information on speed

Hide all answers

1 | What devices and methods are used to enforce speed limits?

Police officers must be able to accurately measure vehicle speeds. Methods vary, but most fall under the general types listed below.

Radar: Radar is the primary method of speed enforcement in the United States. Radar guns aim an electromagnetic signal at a target vehicle and pick up the return signal reflected off the vehicle. The Doppler effect causes the frequency of the return signal to shift by an amount dependent on the relative speeds of the source of the original signal and the target. Speed radar devices measure the frequency of the reflected signal and compare it with the frequency of the original signal to determine the speed of the target vehicle. Radar is highly reliable and accurate. However, it can be difficult to pinpoint specific vehicles in heavy traffic, and some motorists use radar detectors to help them speed without getting caught.

Laser: Laser devices, also known as LIDAR (light detection and ranging), use a time/distance calculation to measure speed. The devices aim a narrow band of light at the target vehicle and measure the time it takes to receive the reflected light. Because the speed of both the original light pulse and its reflection are traveling at the same speed (the speed of light), differences in the time it takes the transmitted light to strike the target vehicle and return can be used to calculate the speed of the vehicle. Lasers can pinpoint specific vehicles in heavy traffic. Devices to detect lasers have been marketed, but the narrowness of the laser beam reduces the likelihood that a laser detector can identify the beam in time to provide drivers with enough advance warning to slow down and avoid a ticket.

VASCAR: VASCAR stands for visual average speed calculator and recorder. It uses a portable computer to accurately clock, calculate and display speed based on the time a vehicle takes to travel a known length of road.

VASCAR provides an average speed measurement over a greater distance than is possible with radar. It enables police officers to identify specific speeding vehicles and can be used from patrol cars following speeders. VASCAR can detect speeding vehicles going in the opposite direction. When used correctly, it is very reliable. It emits no radiation, so it can't be picked up by radar detectors.

Aerial speed measurement: Officers in light aircraft measure vehicle speeds based on the time it takes to travel between two or more pavement markings spaced a known distance apart. Information is transmitted to officers on the ground who then issue speeding citations.

Aerial surveillance can provide very accurate speed measurements and allow officers to focus on the fastest vehicles, but it is costly and can be difficult to use in locations with high traffic volumes.

Speed cameras: Most speed cameras measure the speed of a vehicle at a single spot. In the United States, a majority of speed cameras are fixed and use either radar or detectors embedded in the road surface to measure a vehicle's speed. Mobile cameras are placed at the roadside in marked or unmarked police cars, containers, poles, etc., and use radar or LIDAR to measure speeds. Some communities require mobile cameras to be manned. In either fixed or mobile systems, if a vehicle is traveling faster than a predetermined speed, a motor-driven camera goes off. The date, time, location and speed are recorded along with a photo of the vehicle.

More recent technology can measure average speeds over a certain distance. In this case, cameras located at two or more points record time-stamped images of all vehicles that pass them. Automatic license-plate recognition is used to match individual vehicles so that average speeds between the two points can be calculated. Time-stamped pictures of speeding vehicles are used as evidence of speeding. Point-to-point speed cameras have been used to enforce speed limits in Australia and the United Kingdom.

Video: automated traffic law enforcement

(23)

2 | What are the advantages of speed cameras?

Traffic volumes and the number of drivers have risen faster than the availability of officers whose routine duties include traffic law enforcement. In some jurisdictions, available traffic enforcement resources have declined as apprehension of violent criminals and homeland security efforts take priority. In addition, it may be difficult to observe speeds at the worst places and times. In congested areas, there may be no place to pull over violators without creating hazards.

Automated speed enforcement can substantially reduce speeding on a wide range of roads. Institute studies in Maryland, Arizona and the District of Columbia found that the proportion of drivers exceeding speed limits by more than 10 mph declined by 70, 88 and 82 percent, respectively, after cameras were introduced. [1,2,3]

A 2010 review published by the Cochrane Collaboration, an international public health organization, examined 35 studies from various countries. The authors concluded that speed cameras, including fixed, mobile, overt and covert devices, cut average speeds by 1-15 percent and the percentage of speeding vehicles above the speed limits or designated speed thresholds by 14-65 percent compared with sites without cameras. [4]

3 | How effective are speed cameras at reducing crashes?

A considerable amount of research has shown that automated speed enforcement reduces crashes. A 2005 review analyzed data from 14 studies and found crash reductions in the immediate vicinities of camera sites ranging from 5 to 69 percent for all crashes, 12 to 65 percent for injury crashes and 17 to 71 percent for fatal crashes.[5] A 2007 review of 13 studies reported injury crash reductions of 20 to 25 percent for fixed speed cameras and 21 to 51 percent for mobile speed-camera programs.[6] In 2010, the Cochrane Collaboration reviewed 28 studies that reported the effect on crashes and found reductions of 8-49 percent for all crashes, 8-50 percent for injury crashes and 11-44 percent for crashes involving fatalities and serious injuries, in the vicinity of camera sites.[4] Over wider areas, the review found reductions of 9-35 percent for all crashes, and 17-58 percent for crashes involving fatalities and serious injuries. Reviewed studies with longer duration showed that these trends were either maintained or improved with time.[4]

4 | Are speed cameras used to ticket motorists going 1 or 2 mph faster than the speed limit?

No. Speed cameras usually are programmed so they will not be activated unless a vehicle is traveling significantly faster than the posted limit — typically 10 or 11 mph faster, although in certain places such as school zones the grace levels may be lower.

5 | Are speed cameras widely used in the United States?

Speed cameras are used in 107 U.S. communities in Alabama, Arizona, Colorado, Illinois, Iowa, Louisiana, Maryland, Missouri, New Mexico, Ohio, Oregon, Tennessee, Washington and the District of Columbia. In Illinois and Maryland, cameras are used statewide in highway work zones. In Colorado, Maryland, Utah and Washington, cameras are used statewide in school zones.

U.S. cities with speed cameras

6 | Does the public support the use of speed cameras?

Telephone surveys conducted in three jurisdictions with speed-camera programs show a majority of drivers support them.

A survey conducted nine months after speed cameras were introduced in the District of Columbia showed that 51 percent of drivers favored cameras and 36 percent opposed them. Support for camera enforcement was higher among middle-age and older drivers, among drivers who had not received a

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speeding ticket in the mail and did not know anyone who had, and among drivers who said speeding was a problem. [5]

A survey conducted six months after speed cameras were deployed in Montgomery County, Md., found that 62 percent of drivers were in favor of speed cameras on residential streets. Support was higher among females and drivers 65 and older. [1]

In Scottsdale, Ariz., 63 percent of drivers surveyed prior to the start of automated enforcement said speed cameras should be used on an urban freeway where camera enforcement was planned. After speed cameras were operational, 77 percent of drivers supported their use. [2]

7 | Are there other technologies that could aid in enforcing speed limits?

Yes. Roadside electronic signs that display vehicle speeds to warn drivers they are speeding may reduce speeds and crashes at high-risk locations. Institute research found that mobile roadside speedometers can reduce speeds at the sites of the speedometers, as well as for short distances down the road. [7] When used in conjunction with police enforcement, the effect of speedometers can last longer. Signs warning truck drivers that they are exceeding maximum safe speeds on exit ramps reduce the numbers of trucks traveling greatly above maximum safe speeds. [8]

Intelligent speed adaptation is an emerging technology that links the position of a traveling vehicle via GPS technology and computerized maps with speed limits to determine if the vehicle is speeding. The system may work as an advisory system for the driver or an intervention system that automatically reduces the vehicle's speed to comply with the speed limit.

8 | What are radar detectors?

Radar detectors are radio receivers tuned to the frequency range used by police radar guns. Radar detectors are bought and sold for the sole purpose of helping speeders avoid speeding tickets.

9 | What is the problem with radar detectors?

Institute research has shown that interstate highway drivers with radar detectors reduced their speeds by at least 5 mph or activated their brake lights when suddenly exposed to police radar. Before exposure, vehicles with detectors were traveling significantly faster than those without detectors. By one mile past the radar, more than three-fourths of the vehicles with radar detectors were traveling at least 5 mph faster than the speed limit. [9] Radar detectors cannot pick up laser light. Speeders ticketed by police in Charleston, South Carolina, using laser devices were 4 times as likely to have radar detectors as motorists stopped by officers using conventional radar. [10] Clearly, the only purpose of a radar detector is to avoid speed law enforcement.

Research shows that drivers with radar detectors consistently are overrepresented among the fastest speeders. [11] In a survey of users, more than half admitted to driving faster than they would without the devices. [12]

10 | Are there laws banning radar detectors?

Since January 1994, the U.S. Department of Transportation has prohibited radar detector use in commercial vehicles involved in interstate commerce. Radar detectors also are banned in all vehicles in Virginia and the District of Columbia and in large trucks in New York and Illinois.

11 | Why are radar detectors banned in large trucks?

More than 3,000 people were killed in crashes involving large trucks in 2010, and most of them were not truck occupants. High speeds play a big role in truck crashes because they increase the already-

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long distances required to stop a large truck. Speed also exacerbates the size and weight differences of trucks and passenger vehicles, leading to more severe crashes.

Institute research focusing on large trucks, conducted before the federal ban on radar detectors, found that trucks often had radar detectors and that these trucks were more likely to be exceeding the speed limit. Institute researchers measured speeds and radar detector use in large trucks in 17 states in 1990 and found that more than half of all trucks, including half of trucks carrying hazardous materials, were using radar detectors. Use rates ranged from 39 percent in California to 69 percent in Oklahoma. Trucks with radar detectors exceeded the speed limits more often than those without radar detectors.[13] An earlier study in Virginia and Maryland also showed that trucks with radar detectors were more likely than those without them to be traveling at illegal speeds. [11] On interstates with 65 mph speed limits, trucks using radar detectors were twice as likely as those not using detectors to travel at least 5 mph faster than the limit, and 3 times as likely to travel at least 10 mph faster.

References

[1]Retting, R.A., Farmer, C.F. and McCartt, A.T. 2008. Evaluation of automated speed enforcement in Montgomery County, Maryland. *Traffic Injury Prevention* 9:440-45.

[2]Retting, R.A.; Kyrychenko, S.Y.; and McCartt, A.T. 2008. Evaluation of automated speed enforcement on Loop 101 freeway in Scottsdale, Arizona. *Accident Analysis and Prevention* 40:1506-12.

[3]Retting, R.A. and Farmer, C.M. 2003. Evaluation of speed camera enforcement in the District of Columbia. *Transportation Research Record* 1830:34-37.

[4]Wilson, C.; Willis, C.: Hendrikz, J.K.; Le Brocque, R.; and Bellamy, N. 2010. Speed cameras for the prevention of road traffic injuries and deaths. *The Cochrane Library* 2010, Issue 10. Oxfordshire, England: The Cochrane Collaboration.

[5]Pilkington, P. and Kinra, S. 2005. Effectiveness of speed cameras in preventing road traffic collisions and related casualties: systematic review. *British Medical Journal* 330:331-34.

[6]Decina, L.E.; Thomas, L.; Srinivasan, R.; and Staplin, L. 2007. Automated enforcement: a compendium of worldwide evaluations of results. Report no. DOT HS-810-763. Washington DC: National Highway Traffic Safety Administration.

[7]Casey, S.M. and Lund, A.K. 1993. The effects of mobile roadside speedometers on traffic speeds. *Accident Analysis and Prevention*25:627-34.

[8]Freedman, M.; Olson, P.L.; and Zador, P.L. 1992. Speed actuated rollover advisory signs for trucks on highway exit ramps. Arlington, VA: Insurance Institute for Highway Safety.

[9]Teed, N.; Lund, A.K.; and Knoblauch, R. 1993. The duration of speed reductions attributable to radar detectors. *Accident Analysis and Prevention* 25:131-37.

[10]Teed, N. and Lund, A.K. 1993. The effect of laser speed-measuring devices on speed limit law enforcement in Charleston, South Carolina. *Accident Analysis and Prevention* 25:459-63.

[11]Freedman, M.; Williams, A.F.; Teed, N.; and Lund, A.K. 1990. Radar detector use and speeds in Maryland and Virginia. Arlington, VA: Insurance Institute for Highway Safety.

[12]Opinion Research Corporation. 1988. A survey about radar detectors and driving behavior. Princeton, NJ: Opinion Research Corporation.

[13]Teed, N. and Williams, A.F. 1990. Radar detector use in trucks in 17 states. Arlington, VA: Insurance Institute for Highway Safety.

Q&A: Red light cameras

June 2012

More information on red light running

Hide all answers

1 | How is red light running defined?

If a vehicle enters an intersection any time after the signal light has turned red, the driver has committed a violation. Motorists inadvertently in an intersection when the signal changes (waiting to turn left, for example) are not red light runners. In locations where a right turn on red is permitted, drivers who fail to come to a complete stop before turning may be considered red light runners. However, communities differ as to whether they issue tickets for it when it is caught on camera.

2 | Why do we need red light cameras?

Red light runners cause hundreds of deaths and tens of thousands of injuries each year. In 2010, 673 people were killed and an estimated 122,000 were injured in crashes that involved red light running. About half of the deaths in red light running crashes are pedestrians, bicyclists and occupants in other vehicles who are hit by the red light runners.

An Institute study of urban crashes found that those involving drivers who ran red lights, stop signs and other traffic controls were the most common type of crash (22 percent). Injuries occurred in 39 percent of the crashes in which motorists ran traffic controls. [1]

Red light running crash

Enforcement is the key to getting people to comply with a law, but communities don't have the resources to allow police to patrol intersections as often as would be needed to ticket all motorists who run red lights. Studies have shown that the presence of cameras reduces red light running.

3 | How often do drivers run red lights?

A study conducted during several months at five busy intersections in Fairfax, Virginia, prior to the use of red light cameras found that, on average, a motorist ran a red light every 20 minutes at each intersection. [2] During peak travel times, red light running was more frequent. An analysis of red light violation data from 19 intersections without red light cameras in four states found that 1,775 violations occurred over 554 hours for a violation rate of 3.2 per hour per intersection. [3]

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In a 2011 telephone survey by the AAA Foundation for Traffic Safety, 94 percent of drivers said it's unacceptable to go through a red light if it's possible to stop safely, but 37 percent reported doing so in the past 30 days. [4] In a 2011 Institute survey in 14 large cities with long-standing red light camera programs, 82 percent of drivers said they believed running red lights is a serious threat to their personal safety, and almost all (93 percent) said running red lights is unacceptable. Still, 7 percent of drivers said that they had driven through a light after it had turned red at least once in the past month. [5]

4 | What kinds of drivers are most likely to run red lights?

A 1996 Institute study of red light runners at one Arlington, Virginia, intersection found that, as a group, they were younger, were less likely to use safety belts and had poorer driving records than drivers who stopped for red lights. Red light runners were more than three times as likely to have multiple speeding convictions on their driver records. No gender differences were found between violators and drivers who did not run red lights.[6]

An Institute analysis of 2010 fatal red light running multiple-vehicle crashes compared the red light runners with the drivers involved in these crashes who did not run the red. The red light runners were more likely to be male and to have prior crashes, alcohol-impaired driving convictions and citations for speeding and other moving violations. The red light runners also were more likely to be speeding or alcohol-impaired at the time of the crash and less likely to have a valid driver's license.

5 | How do red light cameras work?

Red light cameras automatically photograph vehicles whose drivers run red lights. The cameras are connected to the traffic signal and to sensors that monitor traffic flow just before the crosswalk or stop line. The system continuously monitors the traffic signal, and the camera captures any vehicle that doesn't stop during the red phase. Many red light camera programs provide motorists with grace periods of up to half a second after the light switches to red.

Red light camera violation

Depending on the particular technology, a series of photographs and/or a video clip shows the red light violator prior to entering the intersection on a red signal, as well as the vehicle's progression through the intersection. Cameras record the date, time of day, time elapsed since the beginning of the red signal, vehicle speed and license plate. Tickets typically are mailed to owners of violating vehicles, based on a review of photographic evidence.

6 | Isn't conventional police enforcement sufficient?

Police can't be everywhere at once, and red light cameras allow officers to focus on other enforcement needs.

Moreover, enforcing traffic laws in dense urban areas by traditional means poses special difficulties for police, who in most cases must follow a violating vehicle through a red light to stop it. This can endanger motorists and pedestrians as well as officers. Traffic stops in urban areas also can exacerbate congestion.

7 | What safety benefits do red light cameras provide?

A 2011 Institute study comparing large cities with red light cameras to those without found the devices reduced the fatal red light running crash rate by 24 percent and the rate of all types of fatal crashes at signalized intersections by 17 percent.[7]

Previous research showed that cameras substantially reduce red light violations and crashes. Studies by the Institute and others have found reductions in violation rates or violations ranging from 40 to 96 percent after the introduction of cameras.[2,8,9] Institute studies in Fairfax, Virginia, and Oxnard, California, found that in addition to the decrease in red light running at camera-equipped sites, the effect carried over to signalized intersections not equipped with red light cameras, indicating community -wide changes in driver behavior.

In Oxnard, significant citywide crash reductions followed the introduction of red light cameras, and injury crashes at intersections with traffic signals were reduced by 29 percent.[10] Front-into-side collisions – the crash type most closely associated with red light running – at these intersections declined by 32 percent overall, and front-into-side crashes involving injuries fell 68 percent.

An Institute review of international red light camera studies concluded that cameras lower red light violations by 40-50 percent and reduce injury crashes by 25-30 percent.[11] The Cochrane Collaboration, an international public health organization, reviewed 10 controlled before-after studies of red light camera effectiveness.[12] Based on the most rigorous studies, there was an estimated 13-29 percent reduction in all types of injury crashes and a 24 percent reduction in right-angle injury crashes.

8 | Don't red light cameras encourage drivers to stop short, increasing the risk of a rear-end collision?

Some studies have reported that while red light cameras reduce front-into-side collisions and overall injury crashes, they can increase rear-end crashes. However, such crashes tend to be much less severe than front-into-side crashes, so the net effect is positive.

A study sponsored by the Federal Highway Administration evaluated red light camera programs in seven cities. [13] The study found that, overall, right-angle crashes decreased by 25 percent while rear-end collisions increased by 15 percent. Results showed a positive aggregate economic benefit of more than $18.5 million in the seven communities. The authors concluded that the economic costs from the increase in rear-end crashes were more than offset by the economic benefits from the decrease in right-angle crashes targeted by red light cameras.

Not all studies have reported increases in rear-end crashes. The review by the Cochrane Collaboration did not find a statistically significant change in rear-end injury crashes. [12] .

9 | Isn't longer yellow signal timing more effective than using red light cameras to reduce red light running?

Providing adequate yellow time and a brief phase when all signals are red is important and can reduce crashes, but those things alone don't eliminate the need for or potential benefits of red light cameras. Studies have shown that increasing yellow timing to values associated with guidelines published by the Institute of Transportation Engineers[14] can significantly decrease the frequency of red light violations.[15,16,17] In addition, a 2002 Institute study found that injury crashes at urban intersections fell 12 percent after the yellow and all-red traffic signal timing was modified according to ITE guidelines.[18]

An Institute study conducted in Philadelphia evaluated effects on red light running of first lengthening yellow signal timing by about a second and then introducing red light cameras.[9] While the longer yellow reduced red light violations by 36 percent, adding camera enforcement further cut red light running by another 96 percent.

10 | Can anything else be done to reduce the number of red light running crashes?

Signalized intersections can be replaced altogether by roundabouts, which have dramatically fewer injury crashes. However, it's not feasible to replace every traffic light with a roundabout, and not every intersection is appropriate for a roundabout. Better enforcement of traffic signals using cameras is a solution that can quickly be implemented on a large scale.

More information on roundabouts

11 | Does someone review the photographs before motorists are ticketed?

Yes. It is standard practice for trained police officers or other officials to review every picture to verify vehicle information and ensure the vehicle is in violation. A ticket is issued only if there is clear evidence the vehicle ran a red light.

12 | Do red light cameras violate motorists' privacy?

No. Driving is a regulated activity on public roads. By obtaining a license, a motorist agrees to abide by certain rules, such as to obey traffic signals. Neither the law nor common sense suggests drivers should not be observed on the road or have their violations documented. Red light camera systems can be designed to photograph only a vehicle's rear license plate, not vehicle occupants, although in some places the law requires a photograph of the driver.

More information on legal issues

13 | Are special laws needed to allow localities to use red light cameras to cite violators?

Before cameras may be used, state or local laws must authorize enforcement agencies to cite red light violators by mail. The legislation makes the vehicle owner responsible for the ticket. In most cases, this involves establishing a presumption that the registered owner is the vehicle driver at the time of the offense and providing a mechanism for vehicle owners to inform authorities if someone else was driving.

Another option is to treat violations captured by red light cameras as the equivalent of parking tickets. If, as in New York, red light camera violations are treated like parking citations, the law can make registered vehicle owners responsible without regard to who was driving at the time of the offense.

Red light cameras currently are authorized in about half of U.S. states.

14 | Isn't the main purpose of red light cameras to make money?

No. The objective of photo enforcement is to deter violators, not to catch them. Signs and publicity campaigns typically warn drivers that photo enforcement is in use. Revenue is generated from fines paid by drivers who continue to run red lights, but this is a fundamental component of all traffic enforcement programs. Ideally, ticket revenue should decline over time as the cameras succeed in deterring would-be red light runners. Independent audits of red light camera enforcement have shown that in some jurisdictions fines exceeded program costs, while in others, the programs didn't break even.[19,20]

15 | Does the American public support the use of red light cameras?

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Like other government policies and programs, camera enforcement requires acceptance and support among the public as well as elected leaders. Some opponents of automated enforcement raise the "big brother" issue to stir up disapproval, and voters in a few cities have rejected cameras.

Still, acceptance of cameras always has been strong. A 2011 Institute survey in 14 big cities with longstanding red light camera programs found that two-thirds of drivers support their use. [5] A 2002 nationwide survey sponsored by the National Highway Traffic Safety Administration found that 75 percent of drivers support red light cameras. [21]

16 | Which U.S. cities use red light cameras?

Cities using red light cameras include Atlanta, Baltimore, Chicago, Denver, New Orleans, New York City, Philadelphia, Phoenix, San Diego, San Francisco, Seattle and Washington, D.C.,plus many other communities.

U.S. cities with red light cameras

References

[1]Retting, R.A.; Williams, A.F.; Preusser, D.F.; and Weinstein, H.B. 1995. Classifying urban crashes for countermeasure development.*Accident Analysis and Prevention* 27:283-94.

[2]Retting, R.A.; Williams, A.F.; Farmer, C.M.; and Feldman, A.F. 1999. Evaluation of red light camera enforcement in Fairfax, Va., USA. *ITE Journal* 69:30-34.

[3]Hill, S.E. and Lindly, J.K. 2003. Red light running prediction and analysis. UTCA Report no. 02112. Tuscaloosa, AL: University Transportation Center for Alabama.

[4]AAA Foundation for Traffic Safety. 2012. 2011 traffic safety culture index. Washington, DC.

[5]McCartt, A.T. and Eichelberger, A.H. 2012. Attitudes toward red light camera enforcement in cities with camera programs. *Traffic Injury Prevention* 13:14-23.

[6]Retting, R.A. and Williams, A.F. 1996. Characteristics of red light violators: results of a field investigation. *Journal of Safety Research*27:9-15.

[7]Hu, W.; McCartt, A.T. and Teoh, E.R. 2011. Effects of red light camera enforcement on fatal crashes in large US cities. *Journal of Safety Research* 42: 277-282.

[8]Retting, R.A.; Williams, A.F.; Farmer, C.M.; and Feldman, A. 1999. Evaluation of red light camera enforcement in Oxnard, California. *Accident Analysis and Prevention* 31:169-74.

[9]Retting, R.A.; Ferguson, S.A.; and Farmer, C.M. 2008. Reducing red light running through longer yellow signal timing and red light camera enforcement: results of a field investigation. *Accident Analysis and Prevention* 40:327-33.

[10]Retting, R.A. and Kyrychenko, S.Y. 2002. Reductions in injury crashes associated with red light camera enforcement in Oxnard, California. *American Journal of Public Health* 92:1822-25.

[11]Retting, R.A.; Ferguson, S.A.; and Hakkert, A.S. 2003. Effects of red light cameras on violations and crashes: a review of the international literature. *Traffic Injury Prevention* 4:17-23.

[12]Aeron-Thomas, A.S. and Hess, S. 2005. Red-light cameras for the prevention of road traffic crashes. *Cochrane Database of Systematic Reviews 2005*, Issue 2, Art. no. CD003862. Oxfordshire, England: The Chochrane Collaboration.

[13]Council, F,; Persaud, B.; Eccles, K.; Lyon, C.; and Griffith, M. 2005. Safety evaluation of red-light cameras. Report no. FHWA HRT-05-048. Washington, DC: Federal Highway Administration.

[14]Institute of Transportation Engineers. 1985. Determining vehicle change intervals: a recommended practice. Washington, DC: Institute of Transportation Engineers.

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[15]Bonneson, J.A. and Zimmerman, K.H. 2004. Effect of yellow-interval timing on the frequency of red-light violations at urban intersections. *Transportation Research Record* 1865:20-27.

[16]Retting, R.A. and Greene, M.A. 1997. Influence of traffic signal timing on red light running and potential vehicle conflicts at urban intersections. *Transportation Research Record* 1595:1-7.

[17]Van Der Horst, R. 1988. Driver decision making at traffic signals. *Transportation Research Record* 1172:93-97.

[18]Retting, R.A.; Chapline, J.F.; and Williams, A.F. 2002. Changes in crash risk following re-timing of traffic signal change intervals.*Accident Analysis and Prevention* 34:215-20.

[19]California State Auditor. 2002. Red light camera programs. Sacramento, CA: Bureau of State Audits.

[20]US General Accounting Office. 2003. Traffic enforcement: funding of automatic red-light and speed enforcement technologies. Report no. GAO-03-408R. Washington, DC.

[21]Royal, D. 2004. National survey of speeding and unsafe driving attitudes and behavior: 2002; Volume II: findings. Report no. DOT HS-809-730. Washington, DC: US Department of Transportation.

Automated enforcement laws

September 2012

Automated enforcement refers to the use of cameras to enforce traffic safety laws. Although many states have laws explicitly authorizing automated enforcement, not all states where cameras are in use have such laws, nor are they always necessary.

A common type of automated enforcement program is for red light violations. The use of cameras to enforce speed limits is less common, but increasing. The technology is also used to catch drivers who fail to pay a toll, drive past a stopped school bus, or disobey a railroad crossing signal. In states that have automated enforcement laws, some authorize enforcement statewide, while others permit use only in specified communities.

Related information:

Communities with red light and/or speed cameras

Q&A: Red light cameras

Q&A: Speed law enforcement

Court decisions concerning automated enforcement

A few jurisdictions treat automated enforcement citations just like parking tickets in that the registered owner is liable. Similarly, just as parking tickets do not result in points or are not recorded on a driver's record, many jurisdictions do not assess points or make a record of automated enforcement citations.

The following table summarizes automated enforcement laws in each state and the District of Columbia.

State	Statewide or only specified locations?	Violations	Citation issued to whom?	Who is liable?	What image is taken?	Traditional enforcement penalties	Auto enforcement penalties record
Alabama							
	Montgomery	red light	owner	owner	2 images; tag included	$100 fine/3 points	$110; no points
Alaska	no state law						
Arizona							
	statewide	red light	not addressed	not addressed	not addressed	$250 fine/2 points	$165 fine/2 points
	statewide	speed	not addressed	not addressed	not addressed	$250 fine/3 points	$165 fine/3 points
Arkansas	use of photo radar by county or state government prohibited except at school zones and railroad crossings; officer must be present and citation must be issued at time of offense						
California							
	statewide	red light	registered owner	driver	tag and driver	$100 fine/1 point	same as for traditional citation
	statewide	rail crossing	registered owner	driver	tag and driver	$100 fine/1 point	same as for traditional citation
Colorado	Colorado law grants the authority to use automated enforcement to capture any traffic violation						
	statewide	red light	registered owner	driver	tag and driver	$110 fine (including surcharge)/4 points	$75; no points or record
	restricted to construction and school zones, residential	speed	registered owner	driver	tag and driver	$151 (including surcharge)/4 points	$40 maximum fine ($80 in school

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	areas, or adjacent to a municipal park						zones); no points or record; warning only for first photo radar offense if speed within 10 mph of limit
Connecticut	no state law						
Delaware							
	statewide	red light	registered owner	owner	2 or more images of the vehicle	$75-$230 fine	$110 maximum fine; not a record or conviction offense; not to be used by insurers
District of Columbia	DC grants jurisdiction-wide authority to use automated enforcement to capture all moving infractions						
	District of Columbia	red light	registered owner	owner	not addressed	$150 fine/2 points	$150; no points
	District of Columbia	speed	registered owner	owner	not addressed	$75-$300 fine/3, 4 or 5 points based on the number of miles per hour over the posted speed limit	$75-$300 fine based on the number of miles per hour over the posted speed limit; no points
Florida							
	statewide	red light	registered owner	owner	tag and traffic control device	$125 fine/3 points	$158; no points
Georgia							
	statewide	red light	registered owner	owner	license tag, intersection, and light	$1,000 maximum fine/3 points	$70 maximum fine; not a conviction or record offense; no points; not a moving violation; not to be used by insurers
Hawaii	no state law						
Idaho	no state law						
Illinois	Illinois has several different automated enforcement laws						
	Cook, DuPage, Kane, Lake, Madison, McHenry, St.	red light	registered owner	owner	2 or more images of vehicle and tag	$500 maximum fine/20 points	$100 or the completion of a traffic education

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	Clair, and Will counties; requires local ordinance						program, or both; not a moving violation or record offense
	statewide only in construction zones or Illinois Toll Authority roads	speed	registered owner	driver	tag and driver	mandatory $250 fine/20 points	$250 fine or 25 hours community service
	any county or municipality may use automated enforcement in cooperation with the Illinois DOT and ICC; ordinance required	rail crossing	registered owner	driver (owner if driver not identified by owner)	vehicle, driver, and tag	$250 maximum fine/20 points	$250 fine or 25 hours community service
	municipalities with a population of 1,000,000 or more may use speed cameras in safety zones (one-eighth mile from school or park); local authorities are prohibited from using speed cameras; state may use speed cameras, but only when a law enforcement officer is present and witnesses the event	speed	registered owner	owner	two or more images of the vehicle and license plate	$1,000 maximum fine/20 points	$50 if 6-10 miles over the limit; $100 if more than 10 over the limit
Indiana	no state law						
Iowa	no state law						
Kansas	no state law						
Kentucky	no state law						
Louisiana	state law provides that convictions resulting from camera enforcement shall not be reported for inclusion in driver record; law is silent on other issues						
Maine	all photo enforcement prohibited						
Maryland							
	statewide	red light	registered owner	owner	2 or more images of rear of vehicle and tag in any medium	$500 maximum fine/2 points	$100 maximum civil penalty; no points or record; not a moving violation; may not be

							used by insurers
	Montgomery County school zones and residential districts, Prince George's County school zones, statewide in school zones by local ordinance and work zones	speed	registered owner	owner	2 or more images of rear of vehicle and tag in any medium	maximum fine $500 in residential district, $1,000 in school zone; points depend on speed	$40 maximum fine; no points
	Montgomery and Prince George's County	rail crossing	registered owner	owner	vehicle, driver and tag	$500 maximum fine/1 point	$100 maximum fine; no points
Massachusetts	no state law						
Michigan	no state law						
Minnesota	no state law						
Mississippi	all localities prohibited from using automated enforcement; all current programs prohibited effective 3/20/09						
Missouri	no state law						
Montana	all localities prohibited from using red light cameras; rail crossings excepted						
Nebraska	no state law						
Nevada	prohibits use of imaging equipment unless it is hand held by an officer, installed in a vehicle or facility of a law enforcement agency; traditional enforcement penalties: $1,000 maximum fine and 4 points						
New Hampshire	prohibited unless there is specific statutory authorization						
New Jersey	speed cameras are prohibited						
	local jurisdictions must pass an ordinance and apply to Transportation Commissioner to participate in a pilot program	red light	registered owner	registered owner and driver are jointly liable	two or more images of vehicle and tag	$85	penalty same as for traditional citation; no points
New Mexico	no state law specifically authorizing automated enforcement; NMDOT has banned red light cameras and mobile enforcement vans on state and federal roadways; state law requires counties and municipalities using camera enforcement to post a warning sign and a warning beacon						
New York							
	cities of at least 1 million people, up to 150 intersections in each city; Effective 5/28/09:	red light	owner	owner	2 or more images of rear of vehicle and tag in any medium	$100 maximum fine/3 points	$50 fine; not a record or conviction offense; may not be used by insurers

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	counties of Nassau and Suffolk, the cities of Buffalo, Rochester and Syracuse, by local ordinance, up to 50 intersections; Yonkers, by local ordinance, up to 25 intersections						
North Carolina							
	where specified by statute (Albemarle, Charlotte, Chapel Hill, Cornelius, Durham, Fayetteville, Greensboro, Greenville, High Point, Huntersville, Lumberton, Matthews, Nags Head, Newton, Pineville, Rocky Mount, Spring Lake, and Wilmington)	red light	owner	owner	photo, video, electronic image	$100 maximum fine/3 points	$75 civil penalty; no points
North Dakota	no state law						
Ohio	no state law						
Oklahoma	no state law						
Oregon							
	cities statewide	red light	registered owner or driver, if identifiable	registered owner	photographs; digital images	$300 maximum fine	penalty same as for traditional citation
	Albany, Beaverton, Bend, Eugene, Gladstone, Medford, Milwaukie, Oregon City, Portland, and Tigard (may not be used for more than four hours per day in any one location)	speed	registered owner or driver, if identifiable	registered owner	photographs; digital images	$300 maximum fine	penalty same as for traditional citation
Pennsylvania							
	Philadelphia, Pittsburgh, and municipalities with a population	red light	registered owner	owner	photographs	$25 fine/3 points	$100 maximum; not on operating record

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	exceeding 20,000 with a police department accredited by the Pennsylvania Chiefs of Police Association in Bucks, Chester, Delaware, and Montgomery Counties; requires local ordinance						
Rhode Island							
	statewide	red light	registered owner	driver	2 or more images of vehicle and tag in any medium	$75 fine	$75 fine; not a criminal or record offense; not a moving violation; not to be used by insurers until there is a final adjudication of the violation
South Carolina	photo enforcement prohibited with narrow exception; citations for violating traffic laws relating to speed or disregarding traffic control devices may only be used when the State declares an emergency and citations must be served in person within one hour of the violation						
South Dakota	no state law						
Tennessee							
	statewide except for interstate highways that are not work zones	traffic violation; right turn on red violations limited to signed intersections	registered owner	registered owner	red light violations, front tires before the stop line and rear tires past stop line both while signal is red	$50 fine/points	$50; no points
Texas	a Texas municipality may not use an automated traffic control system to enforce speed						
	statewide; requires local ordinance	red light	registered owner	owner	2 or more photographic or digital images of tag	$200 maximum fine	$75; not a criminal or record offense
Utah							
	statewide only school zones or where limit is 30 mph or less; officer must be present; requires local ordinance	speed	not addressed	not addressed	photograph	$1,000 maximum fine/50 points	not reportable; no points may be assessed
Vermont	no state law						

Virginia	counties, cities, and towns may operate cameras at no more than 1 intersection for every 10,000 residents; requires local ordinance; the exception is the Washington, DC metropolitan area, it permits up to 10 camera sites or 1 site per 10,000 residents, whichever is greater	red light	registered owner	driver	2 photographs or other recorded images	$200 maximum fine/4 points	$50 maximum fine; no court costs; not a criminal offense; no points; may not be used by insurers
Washington							
	cities and counties statewide at arterial road intersections with stoplights meeting MUTCD standards for yellow change intervals; local ordinance required	red light	registered owner	registered owner	vehicle, license tag	$250 maximum fine	$250 maximum fine; no record; no points
	school zones; local ordinance required	speed	registered owner	registered owner	vehicle, license tag	$250 maximum fine	fine up to the maximum for parking violations in the jurisdiction; no record; no points
	cities and counties statewide; local ordinance required	rail crossing	registered owner	registered owner	vehicle, license tag	$250 maximum fine	fine up to the maximum for parking violations in the jurisdiction; no record; no points
West Virginia	all photo enforcement prohibited						
Wisconsin	speed cameras are prohibited						
Wyoming	no state law						

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BUDGET SUMMARY - SAFE SPEED PROGRAM

	Actual FY09	Approved FY10	Estimated FY10	Approved FY11	% Chg Bud/App
EXPENDITURES					
Personnel Cost	981,749	1,939,960	1,710,879	1,741,850	-10.21%
Operating Expenses	7,511,468	11,259,110	11,259,110	6,587,360	-41.49%
Capital Outlay	-	-	-	-	0.00%
Total Expenditures	**8,493,217**	**13,199,070**	**12,969,989**	**8,329,210**	**-36.90%**
PERSONNEL					
Full-Time	25	34	34	30	-11.76%
Part-Time	0	0	0	0	0.00%
Workyears	***23.4***	***30.6***	***30.6***	***28.0***	***-8.50%***
REVENUES					
Speed Camera Citations	19,101,097	28,797,610	15,837,110	15,837,110	-45.01%
Speed Camera Late Fees	1,360,769	309,680	1,104,960	1,104,960	256.81%
Speed Camera Flagging Fees	282,053	245,070	270,560	270,560	10.40%
Speed Camera Other	2,610	-	-	-	0.00%
Total Revenues	**20,746,529**	**29,352,360**	**17,212,630**	**17,212,630**	**-41.36%**
NET REVENUES (Expenditures less Revenues)				**8,883,420**	

Net Revenue Allocation

Traffic Division - Alcohol Initiative Program	$	901,620
Traffic Division - School Safety Sworn	$	813,780
Traffic Division - School Safety Civil	$	4,253,050
Patrol Traffic - Sworn*	$	2,914,970
Total Net Revenue Allocation	**$**	**8,883,420**

Expenditures cost for the District 1 (Rockville) and District 2 (Bethesda).

BUDGET SUMMARY - SAFE SPEED PROGRAM

	Actual FY10	Budget FY11	Estimated FY11	Approved FY12	% Chg Bud/Rec
EXPENDITURES					
Personnel Cost	1,347,849	1,741,850	1,741,850	1,741,850	0.00%
Operating Expenses	6,043,759	6,587,360	4,495,200	4,164,170	-36.79%
Capital Outlay	-	-	-	-	0.00%
Total Expenditures	**7,391,608**	**8,329,210**	**6,237,050**	**5,906,020**	**-29.09%**
PERSONNEL					
Full-Time	34	30	30	30	0.00%
Part-Time	0	0	0	0	0.00%
Workyears	***30.6***	***28.0***	***28.0***	***28.0***	***0.00%***
REVENUES					
Speed Camera Citations	14,542,885	15,837,110	10,687,240	9,872,360	-37.66%
Speed Camera Late Fees	1,506,123	1,104,960	1,200,000	1,104,960	0.00%
Speed Camera Flagging Fees	403,728	270,560	320,000	270,000	-0.21%
Speed Camera Other	2,885	-	-	-	0.00%
Total Revenues	**16,455,621**	**17,212,630**	**12,207,240**	**11,247,320**	**-34.66%**
NET REVENUES (Revenues less Expenditures)	**9,064,013**	**8,883,420**	**5,970,190**	**5,341,300**	
Net Revenue Allocation					
Traffic Division - Alcohol Initiative Program		919,050	-	976,280	
Traffic Division - School Safety Sworn		815,950	-	584,920	
Traffic Division - School Safety Civil		4,253,050	-	3,780,100	
Patrol Traffic - Sworn*		2,895,370	-	-	
Total Net Revenue Allocation		**8,883,420**	**-**	**5,341,300**	

Expenditures cost for the District 1 (Rockville) and District 2 (Bethesda).

BUDGET SUMMARY - SAFE SPEED PROGRAM

	Actual FY11	Approved FY12	Estimated FY12	Approved FY13	% Chg Bud/Rec
EXPENDITURES					
Personnel Cost	1,647,621	1,741,850	1,728,151	1,845,035	5.92%
Operating Expenses	3,599,223	4,164,170	6,553,883	6,606,537	58.65%
Capital Outlay	-	-		-	0.00%
Total Expenditures	**5,246,844**	**5,906,020**	**8,282,034**	**8,451,572**	**43.10%**
PERSONNEL					
Full-Time	30	30	30	30	0.00%
Part-Time	0	0	0	0	0.00%
Workyears	***28.0***	***28.0***	***28.0***	***28.0***	**0.00%**
REVENUES					
Speed Camera Citations	11,861,157	9,872,360	10,595,200	13,607,620	37.84%
Speed Camera Late Fees	1,213,906	1,107,670	1,107,670	-	-100.00%
Speed Camera Flagging Fees	284,139	297,000	297,000	-	-100.00%
Speed Camera Other	-	-	-	-	0.00%
Total Revenues	**13,359,202**	**11,277,030**	**11,999,870**	**13,607,620**	**20.67%**
NET REVENUES (Revenues less Expenditures)	**8,112,358**	**5,371,010**	**3,717,836**	**5,156,048**	
Net Revenue Allocation					
Traffic Division - Alcohol Initiative Program	-	976,280		1,008,126	
Traffic Division - School Safety	-	4,394,730		4,147,922	
Traffic Division - Traffic Collision	-	-		-	
Total Net Revenue Allocation	**-**	**5,371,010**		**5,156,048**	

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ATTACHMENT B

AUTOMATED TRAFFIC ENFORCEMENT PROGRAMS		
Traffic Programs	**Red Light**	**Speed**
Issued Citations	**40,294**	**487,820**
Expenditures	**Actual FY11**	**Actual FY11**
Personnel Cost	$ 407,527	$ 1,647,621
Vendor Compensation	$ 957,022	$ 3,586,374
Other Operating Expenses	$ 26,347	$ 12,849
Capital Outlay	$ -	$ -
Total Expenditures	**$ 1,390,895**	**$ 5,246,844**
Revenues	**Actual FY11**	**Actual FY11**
Citations	$ 2,667,728	$ 11,861,157
Late Fees	$ 203,463	$ 1,213,906
Flagging Fees	$ 68,551	$ 284,139
Others	$ 9,315	$ -
Total Revenues	**$ 2,949,056**	**$ 13,359,202**
Net Revenues (Revenues less Expenditures)	**1,558,161**	**8,112,358**

MUNICIPAL SPEED CAMERA PROGRAMS

Rockville, Gaithersburg, Chevy Chase Village, and Takoma Park operate speed camera programs under the State law that authorizes the County's Safe Speed program. The municipalities operate both fixed and mobile speed cameras with a combined total of 93 enforcement locations. Under current memoranda of understanding (MOU), the County processes citations from municipal speed cameras at no charge to the municipalities. In July 2009, County staff initiated discussions to renegotiate the terms of these agreements to include a "reasonable administrative fee" paid to the County.

SAFE SPEED PROGRAM FINANCES

Safe Speed program revenue has increased annually. In FY08, the first full year of the program, County speed cameras generated $12.5 million in revenue; in FY09, the revenue increased to $18.6 million. The approved FY10 budget includes estimated program revenue of $29.4 million. The annual increases in program revenue correlate with the addition of new speed camera enforcement sites.

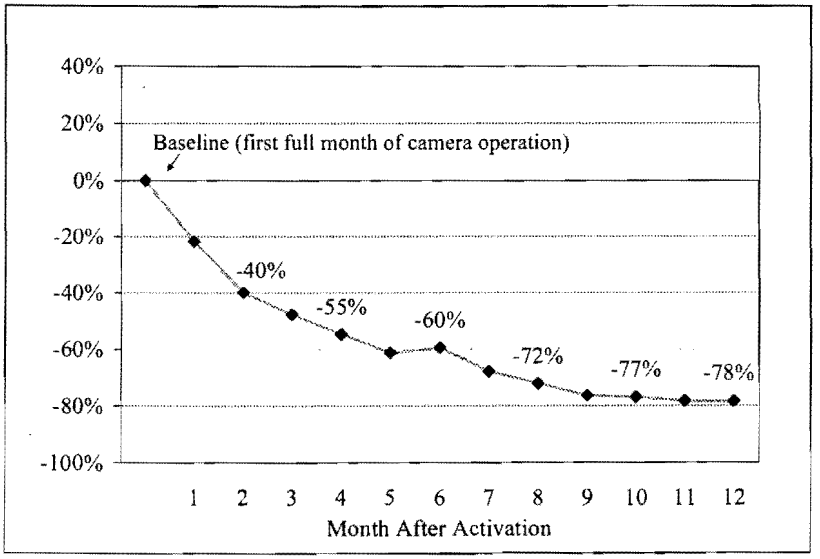
Contract costs are the largest component of the Safe Speed budget. The FY10 Safe Speed program budget is $13.2 million. Vendor costs account for 84% of budgeted expenditures; personnel costs account for 15% of the budget and fund one uniform position (1.0 WY) and 33 civilian (29.8 WY) positions.

Net revenues fund public safety expenditures. In the FY10 approved budget, Safe Speed program revenues are estimated to exceed program costs by $13 million. The budgeted uses of these net revenues include: funding police officers in schools and district stations ($4.8 million); support of fire and rescue operations ($2.9 million); and pedestrian safety initiatives ($1.5 million).

SPEED CAMERAS AND DRIVER BEHAVIOR

Few drivers repeatedly pass speed cameras at excessive speeds. Two-thirds of the more than half a million vehicles identified on speed camera citations between May 2007 and June 2009 received only one citation during that period. Only 2% of vehicles received more than five citations during this time. These data suggest that for most drivers, the $40 fine effectively deters future speeding in speed camera enforcement locations.

Average Percent Change in Speed Camera Citations/Month



Citations generated by speed cameras drop precipitously within the first year. At all fixed speed camera sites, the number of citations issued per month decreased sharply within one year after activation. On average, the number of citations generated by speed cameras decreased by 78% from the first full month of operation compared to the same month a year later.

A substantial number of speed camera citations are for vehicles traveling at the enforcement threshold. Since the program started, MCPD calibrated its speed cameras to generate citations for vehicles traveling 11 or more miles per hour above the speed limit. To date, 32% of citations have been for vehicles measured at exactly 11 miles per hour above the speed limit.

Speeding occurs at all hours. A large portion of speed camera citations result from speeding that occurs during weekend and overnight hours. Nearly half of all citations generated by school zone speed cameras are for violations on Saturdays, Sundays, and weekdays between 8 pm and 6 am.

SPEED CAMERAS AND ROADWAY SAFETY

Vehicle speeds decreased near speed camera sites. After one year of automated enforcement, the speed of vehicles passing camera sites declined by an average of 6%. At 40 miles per hour, a decline of 6% equates to a 2.4 miles per hour reduction in average vehicle speed.

After one year of automated enforcement, the percent of vehicles exceeding the speed limit when passing camera sites was cut in half. During the first full month after camera activation, 25% of vehicles passed fixed speed camera sites traveling above the speed limit with 2% of vehicles passing at 11 or more miles per hour above the speed limit. One year later, the percent of vehicles traveling above the speed limit decreased to 13% with less than 1% of vehicles speeding at 11 or more mph above the speed limit.

Vehicle Speeds Passing Fixed Speed Camera Sites:
First and Thirteenth Full Months after Camera Activation

Percent of Vehicles Passing Camera Site:	First Month After Activation	Thirteenth Month After Activation
At or Below Speed Limit	73%	87%
1 to 10 MPH Above Speed Limit	25%	13%
11+ MPH Above Speed Limit	2%	<1%

Reported collisions near speed camera sites decreased after camera activation. An annual average of 462 reported collisions occurred within one half mile of camera sites during the four years preceding activation of the speed cameras. During the year following camera activation, a total of 329 reported collisions occurred near the same locations, a 28% decline from the annual rate before camera activation.

Percent Reduction in Annual Reported Collisions near Speed Camera Sites

Type of Collision	Number of Collisions		Percent Change (Before vs. After)
	Before Camera Activation (Four-Year Average)	After Camera Activation (One Year)	
Property Damage Only	252	203	-19%
Injury or Fatality	206	126	-39%
All Reported Collisions	458	329	-28%

In the vicinity of speed cameras, the annual number of reported collisions that involved an injury or fatality declined by 39% after camera activation. In contrast, reported collisions involving property damage only dropped by 19% after the activation of speed cameras. The higher rate of decline for injury/fatality collisions suggests that reduced speeds may have a greater effect on the severity of collisions than on the prevalence of collisions.

Rear-end Collisions. A common concern raised about speed cameras is that they cause drivers to brake suddenly before passing a camera site, which then results in rear-end collisions. However, the data show an opposite outcome. Compared to the average for the previous four years, rear-end collisions occurring with one half mile of speed camera sites decreased by 18% in the year after speed camera activation.

Collisions involving pedestrians/bicyclists. While the overall rate of collisions declined in the first year following activation of speed cameras, collisions involving pedestrians and bicycles did not experience a parallel decrease.

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